

REMARKS

Applicant requests favorable reconsideration and allowance of the subject application in view of the preceding amendments and the following remarks.

To place the subject application in better form, the specification has been amended to correct minor informalities. No new matter has been added by these changes.

Claims 37-59 are presented for consideration. Claims 37, 38, 43, 48 and 53 are independent. Claims 37-57 have been amended to clarify features of the subject invention, while claims 58 and 59 have been added to recite additional features of the subject invention. Support for these changes and these claims can be found in the original application, as filed. Therefore, no new matter has been added.

Applicants note with appreciation that claims 39-41, 44-46, 49-51 and 54-56 have been indicated as containing allowable subject and would be allowed if rewritten in independent form to include the recitations of their respective base and intervening claims. Applicants earnestly believe, however, that they should be entitled to the protection afforded by independent claims 37, 38, 43, 48 and 53, as presented. Therefore, claims 39-41, 44-46, 49-51 and 54-56 have not been so rewritten at this time. Nevertheless, the Examiner will note that Applicants have amended each of the independent claims to recite that the system or the controller selects at least one detection section from a plurality of detection sections, based on information of a region of a substrate surface to be detected, and calculates a position of the region, based upon an output of the selected detected section or sections.

Applicants request favorable reconsideration and withdrawal of the rejections set forth in the above-noted Office Action.

Claim 37 was rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,593,800 to Fujioka et al. Claim 38 was rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,661,408 to Kamieniecki et al. Claims 42, 43, 47, 48, 52, 53 and 57 were rejected under 35 U.S.C. § 103 as being unpatentable over the Fujioka et al. patent in view of the Kamieniecki et al. patent. Applicants submit that the cited art, whether taken individually or in combination, does not teach many features of the present invention, as previously recited in claims 37-57. Therefore, these rejections are respectfully traversed. Nevertheless, Applicants submit that claims 37-59, for example, as presented, amplify the distinctions between the present invention and the cited art.

In one aspect of the present invention, independent claim 37 recites an electrostatic sensing apparatus that includes a plurality of detection sections, and a system which selects at least one detection section from the plurality of detection sections, based on information of a region, of an object surface to be detected, and calculates a position of the region, based upon an output of the selected detection section.

In another aspect of the present invention, independent claim 38 recites a lithographic system that includes an electrostatic sensor having a plurality of detection sections, and a controller which selects at least one detection section from the plurality of detection sections, based on information of a region of a substrate surface to be detected, and calculates a position of the region, based upon an output of the selected detection section.

In a further aspect of the present invention, independent claim 43 recites a lithographic system that includes a plurality of electrostatic sensors each having a plurality of detection sections, and a controller which selects at least one detection section from each of the plurality of electrostatic sensors, based on information of a region of a substrate surface to be detected, and calculates a position of the region, based upon outputs of the selected detection sections of the plurality of electrostatic sensors.

In yet another aspect of the present invention, independent claim 48 recites a scanning exposure apparatus for exposing a substrate to a pattern of a mask by scanning the mask and the substrate relative to a slit-shaped exposure beam. The exposure apparatus includes an electrostatic sensor having a plurality of detection sections arranged in a direction perpendicular to a scanning direction of the mask and the substrate, and a controller that selects at least one detection section from the plurality of detection sections and detects a height of a substrate surface, based upon an output of the selected detection section.

In a still further aspect of the present invention, independent claim 53 recites a scanning exposure apparatus for exposing a substrate to a pattern of a mask by scanning the mask and the substrate relative to a slit-shaped exposure beam. The exposure apparatus includes a plurality of electrostatic sensors each having a plurality of detection sections arranged in a direction perpendicular to a scanning direction of the mask and the substrate, and a controller which selects at least one detection section from each of the plurality of electrostatic sensors, based on information of a region of a surface of the substrate to be detected, and calculates a position of

the region, based upon outputs of the selected detection sections of the plurality of electrostatic sensors.

Accordingly, in the present invention recited in the independent claims, a system or a controller selects at least one detection section from the plurality of detection sections, based on information of a region of a substrate surface to be detected and calculates a position of the region, based upon an output of the selected detection section or sections. Applicants submit that the cited art does not teach or suggest such features of the present invention, as recited in the independent claims. (In this regard, the Examiner stated, in the Allowable Subject Matter section of the Office Action, that the prior art of record fails to disclose or suggest that the selection of at least one detection section is based on a dimension or position of the shot region or on the arrangement of chip regions in conjunction with the rest of the claimed subject matter.) Applicants submit, therefore, that the cited art fails to teach or suggest that the selection of the detection section is based on information of a region, of an object surface to be detected, in the manner of the present invention recited in the independent claims.

The Examiner cited the Fujioka et al. and Kamieniecki et al. patents for teaching electrostatic sensors having a plurality of detection sections and a device to select at least one detection section from the plurality of detection sections and to calculate a position, for example, of an object surface based on an output of a selected detection section. Applicants submit, however, that these patents, whether taken individually or in combination, fail to teach or suggest the salient features of Applicants' present invention, as recited in the independent claims, which have been discussed above, of a system or controller which selects at least one detection section

from a plurality of detection sections based on information of a region of an object surface to be detected, and calculates a position of the region, based upon an output of the selected detection section or sections. Accordingly, that art does not teach or suggest many features of the present invention, as recited in the independent claims.

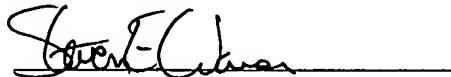
For the foregoing reasons, Applicants submit that the present invention, as recited in independent claims 37, 38, 43, 48 and 53, also is patentably defined over the cited art, whether that art is taken individually or in consideration.

Dependent claims 39-42, 44-47, 49-52 and 54-59 also should be deemed allowable, in their own right, for defining other patentable features of the present invention in addition to those recited in their independent claims. Further individual consideration of these dependent claims is requested.

Applicants further submit that the instant application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-noted Office Action and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should be directed to our address listed below.

Respectfully submitted,



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